

# PATENT SPECIFICATION



Application Date : Aug. 23, 1930. No. 25,211 / 30.

**352,786**

Complete Left : May 29, 1931.

Complete Accepted : July 16, 1931.

## PROVISIONAL SPECIFICATION.

### Improvements relating to Removable Head Fittings for Motor Vehicles.

We, SUNSALOON BODIES LIMITED, a British Company, of Semple Street, Edinburgh, and DONALD ASHMORE PEARSON, a British Subject, of Castleford Road, Sparkhill, Birmingham, do hereby declare the nature of this invention to be as follows :—

The object of the present invention is to provide a lock or catch in conjunction with the movable head fitting which will hold the fitting securely in the closed position, but will be automatically released by the operation of the normal mechanism for lowering the fitting when it is desired to remove a head fitting to open the car.

Motor vehicles are now frequently made with either the whole of the hood, or a portion thereof, removable with respect to fixed cantrails or side framing members so that a vehicle with the sides of a saloon car or closed car may have all the advantages when desired of an open or touring car.

The removable head fitting, as the travelling hood, or portion of the hood, is usually called, is frequently operated by means of an endless chain or endless cable operating along the cantrails or side frame members of the vehicle.

Usually, a rigid front bar or control bar on the head fitting is connected to a pair of chains or endless cables at the sides of the vehicle and, when the hood or fitting is extended to close the roof of the vehicle, this bar is usually secured by screw clips or some form of catch to a fixed front member at the top of the wind screen of the vehicle. Such an arrangement is difficult to operate without assistance as the person using the key or other means for rotating the control sprocket of the endless chain, or pulley of an endless cable, is frequently remote from the position of the catches or clips holding the hood in the closed position.

We provide in combination with such endless chains or cables for operating these removable head fittings a catch device which is automatic alike in the closing and opening operation. Thus all that is necessary is to operate the usual key or handle for setting the endless chain in motion and traversing the head in one or

the other direction.

This action automatically releases the catch in the opening operation or permits it to engage in the closing operation.

The invention consists in the connection to one or both of the operating endless chains of a cranked pivotal catch mounted on the front or control bar of the removable part of the head. This catch is provided with an inclined hook-like nose so that it may engage an aperture or slot in a striking plate in a fixed front member as the control bar closes against that member in the operation of raising or closing the hood. The tail of this catch member beyond the pivot on the control bar is shorter than the head portion so that a very small movement of the tail is necessary to permit the snap engagement of the head and to permit a releasing movement of the latter in the opening operation. This tail end is directly connected by any suitable clipping or fastening means with the chain or cable. Upon the control bar, abutment pegs are placed on each side of the tail member so that when a pull is exerted by the chain in the forward direction, the tail member is rocked against one or the other of the pegs and after this very slight movement, transmits the pull direct to the control bar. When the control bar reaches the fixed front member in the closing operation, the catch engages by snap action as the inclined face on its hook end will ride into correct engagement of the catch plate.

The small movement of the tail part of the catch necessary for this operation is permitted by slight slackness which must necessarily be present in a chain or the like.

On the reverse rotation of the control sprocket giving a pull of the chain in a direction to carry the control bar rearwardly to open the head, the pull comes upon the tail of the catch in the reverse direction rocking it so as to lift the catch member.

The tail then strikes the other peg or abutment and the pull is transmitted to the control bar and the further operation of the hood occurs in the usual way.

Dated this 22nd day of August, 1930.

[Price 1/-]

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For the Applicants,  
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### COMPLETE SPECIFICATION.

#### Improvements relating to Removable Head Fittings for Motor Vehicles.

We, SUNSALOON BODIES LIMITED, a British Company, of Semple Street, Edinburgh, and DONALD ASHMORE PEARSON, a British Subject, of Castleford Road, 5 Sparkhill, Birmingham, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

10 Motor vehicles are now frequently made with either the whole of the hood, or a portion thereof, removable with respect to fixed cantrails or side framing members so that a vehicle with the sides of a saloon 15 car or closed car may have all the advantages when desired of an open or touring car.

The removable head fitting, as the travelling hood, or portion of the hood, 20 is usually called, is frequently operated by means of an endless chain or endless cable operating along the cantrails or side frame members of the vehicle.

Usually, a rigid front bar or control 25 bar on the head fitting is connected to a pair of chains or endless cables at the sides of the vehicle and, when the hood or fitting is extended to close the roof of the vehicle, this bar is usually secured by 30 screw clips or some form of catch to a fixed front member at the top of the wind screen of the vehicle. Such an arrangement is difficult to operate without assistance as the person using the key or other 35 means for rotating the control sprocket of the endless chain, or pulley of an endless cable, is frequently remote from the position of the catches or clips holding the hood in the closed position.

40 The object of the present invention is to provide a lock or catch on the movable head fitting which will hold the fitting securely in the closed position, but will be automatically released by the operation 45 of the normal mechanism for lowering the fitting when it is desired to draw back the head fitting in order to open the car.

Thus all that is necessary is to operate 50 the usual key or handle for setting the endless chain in motion and traversing the head in one or the other direction. This action automatically releases the catch in the opening operation or permits it to engage in the closing operation.

55 In the appended explanatory drawings, Figure 1 is a plan of a vehicle with a

movable head of the kind described with the improved catch device in position.

Figure 2, is a plan of a fragment of the front bar of the movable head fitting shown in Figure 1 with upper part of the bar broken away to expose the catch lever.

Figures 3 and 4 are views of one type of catch for use with the device shown in Figure 2.

Figure 5, illustrates an arrangement in which the pivotal member operated by the chain is formed at its other end to act as a catch.

In these drawings *a* is the fixed part of the head of the vehicle corresponding usually with the top of the wind screen, *b* is the end bar of the movable part or head *c*. The head illustrated in Figure 1 moves from the front end toward the rear in opening and thus the bar *b* is the front bar of the movable head. *d* is the endless operating chain which may be arranged in a well known manner and forms no part of the invention except in its connection to the catch device. *e* is a bar connected in the chain and having a connection to one end *f* of a catch lever *g*. The lever is cranked; it is pivoted at *h* on the front bar *b*, and its free end *i* is arranged between two pegs or other suitable fixed abutments *j* on the bar *b*.

From the end *i* of the catch lever a light cable *k* or other suitable connection is arranged along the bar *b* to a catch plate *m*. The latter may be of a known type as shown comprising a perforated plate with a spring (not shown) within a casing *n* normally urging the plate so that its perforation is eccentric to that of the casing *n* so that the plate may engage a slot *o* in a fixed nose *p* secured on the fixed part *a* of the vehicle.

The end *f* of the catch lever *g* is shorter than the free end *i* so that a very small movement of the end *f* is necessary to provide sufficient movement of the end *i* to withdraw the catch plate *m* and release it from the slot of the nose *p*. When a pull is exerted by the chain *d* in the forward direction, to the left in Figs. 1 and 2, the end *i* is rocked against one or the other of the pegs *j* and after this very slight movement, transmits the pull direct to the control bar *b* of the movable head part *c*. When the control bar reaches the fixed front member *a* in the closing operation,

the catch engages by snap action as the inclined end of the nose *p* will ride into correct engagement of the catch plate *m*.

The small movement necessary for this operation is permitted by the connection *k* if that is flexible or by the slight slackness which must necessarily be present in a chain or the like.

On the reverse rotation of the control 10 sprocket giving a pull of the chain *d* directed to the right in Figures 1 and 2 so as to carry the control bar rearwardly to open the head, the pull comes upon the end *f* of the catch lever in the reverse direction rocking the lever into the position seen in full lines in Figure 2 which 15 pulls upon and releases the spring plate *m*. The end *i* then strikes the outer peg or abutment *j* and the pull is transmitted to 20 the control bar *b* and the further operation of the hood or panel of the head occurs in the usual way.

In the construction illustrated in Figure 25 5, the end of the part *i* of the lever *g* is formed with a hook to engage directly with a slotted plate *q* secured to the fixed bar or part *a*.

The operation is the same as before; but with this arrangement it is desirable to 30 employ two catches, one at each side, as the connection of the lever to the chain entails its location at the side of the vehicle where the chains are usually arranged.

35 Having now particularly described and ascertained the nature of our said invention and in what manner the same is to be performed, we declare that what we claim is:—

40 1. Improved catch for removable head fittings of vehicles wherein a pivotal catch or latch operating lever is pivoted on the

movable head fitting, is connected to the chain or cable which moves that fitting and is permitted a limited pivotal movement so that it may operate automatically as the chain or cable is actuated to move the head fitting. 45

2. Automatic catch or latching device for the removable head fittings of motor vehicles operated by means of travelling chains or cables, wherein a catch or catch-operating lever, pivoted between stops on a part of the movable fitting, is connected at one end or part to the operating chain or the like of the fitting and at its other end is formed as, or connected to, a catch for engaging a fixed part of the vehicle and thus securing the movable head thereto. 50

3. Automatic catch device or catch operating device pivotally mounted on the end bar or part of a movable head fitting of the kind operated by travelling chains, cables, or the like, so as to form the operative connection between the chain or cable and the said bar or part of the fitting and having a limited amount of pivotal movement when the chain or cable is pulled before the bar or part of the fitting is moved, this movement enabling a latching engagement with a fixed part of the vehicle to take place or to be released automatically. 55

4. The improved automatic catch for 70 chain or cable-operated, movable head fittings for vehicles substantially as described. 75

Dated this 22nd day of May, 1931.

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[This Drawing is a reproduction of the Original on a reduced scale]

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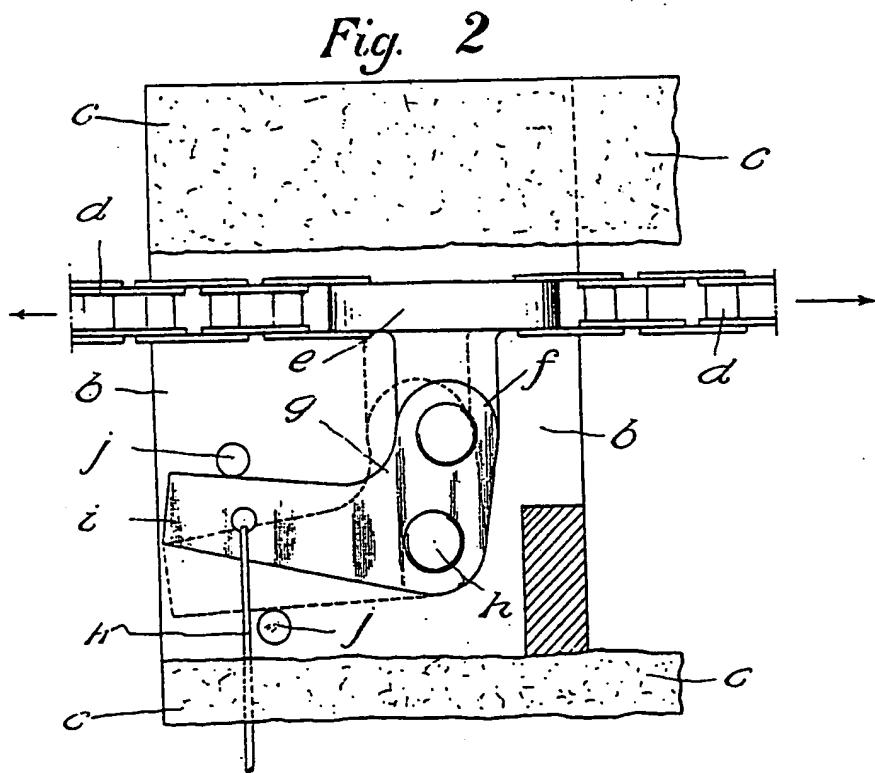
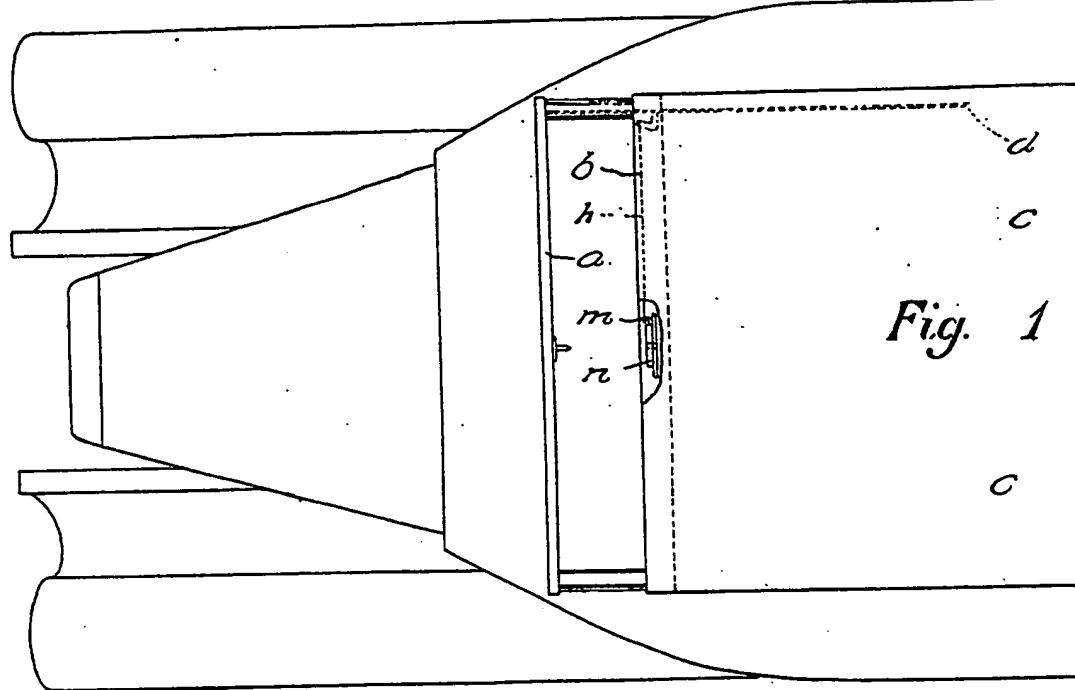
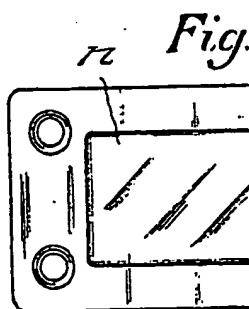


Fig.



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1 SHEET

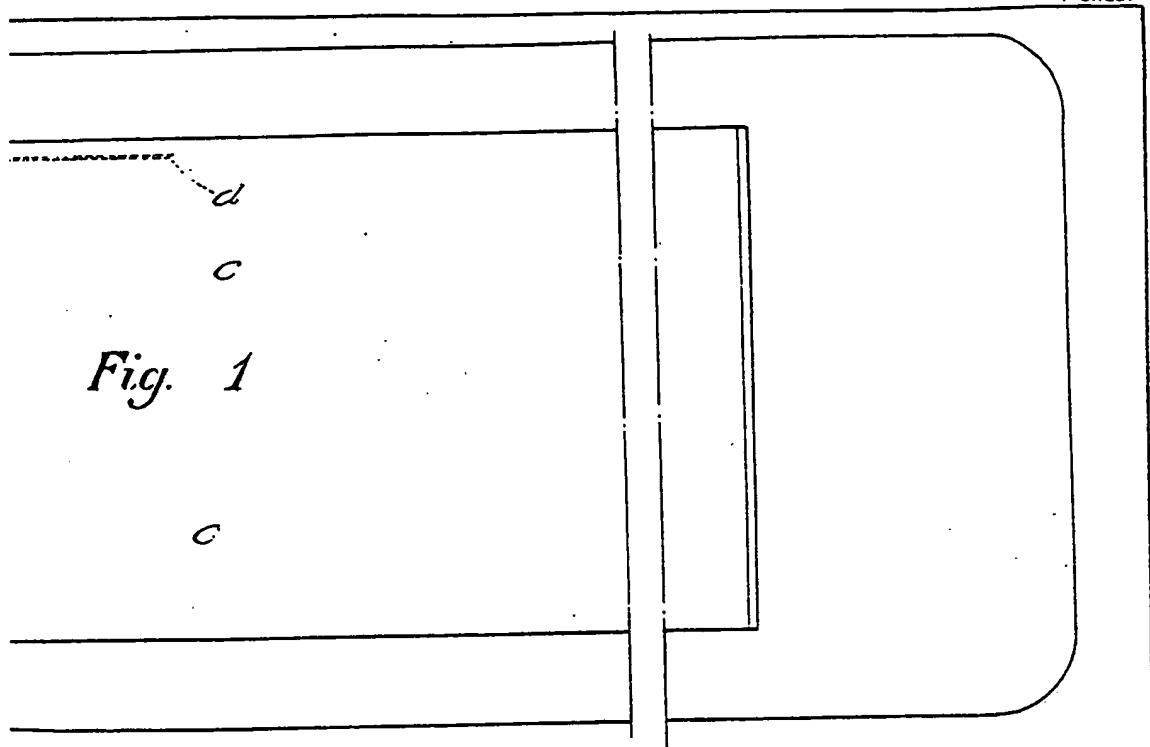


Fig. 1

Fig. 3

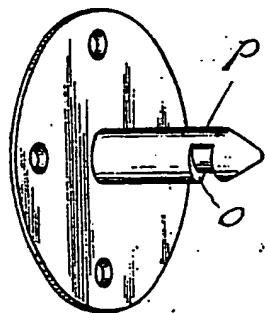


Fig. 4

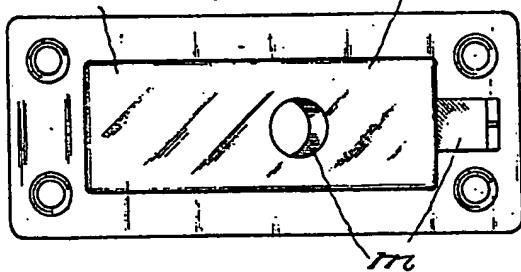
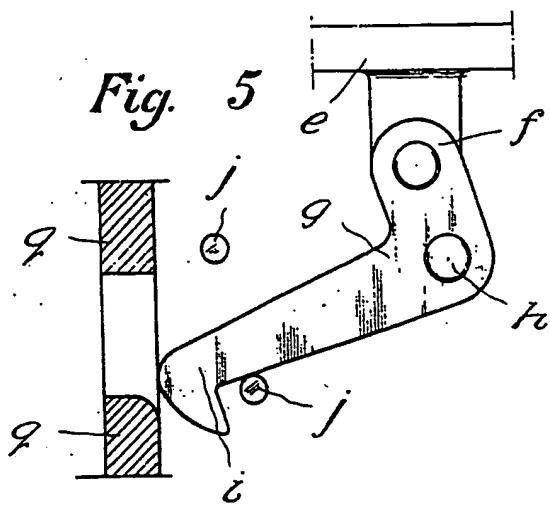
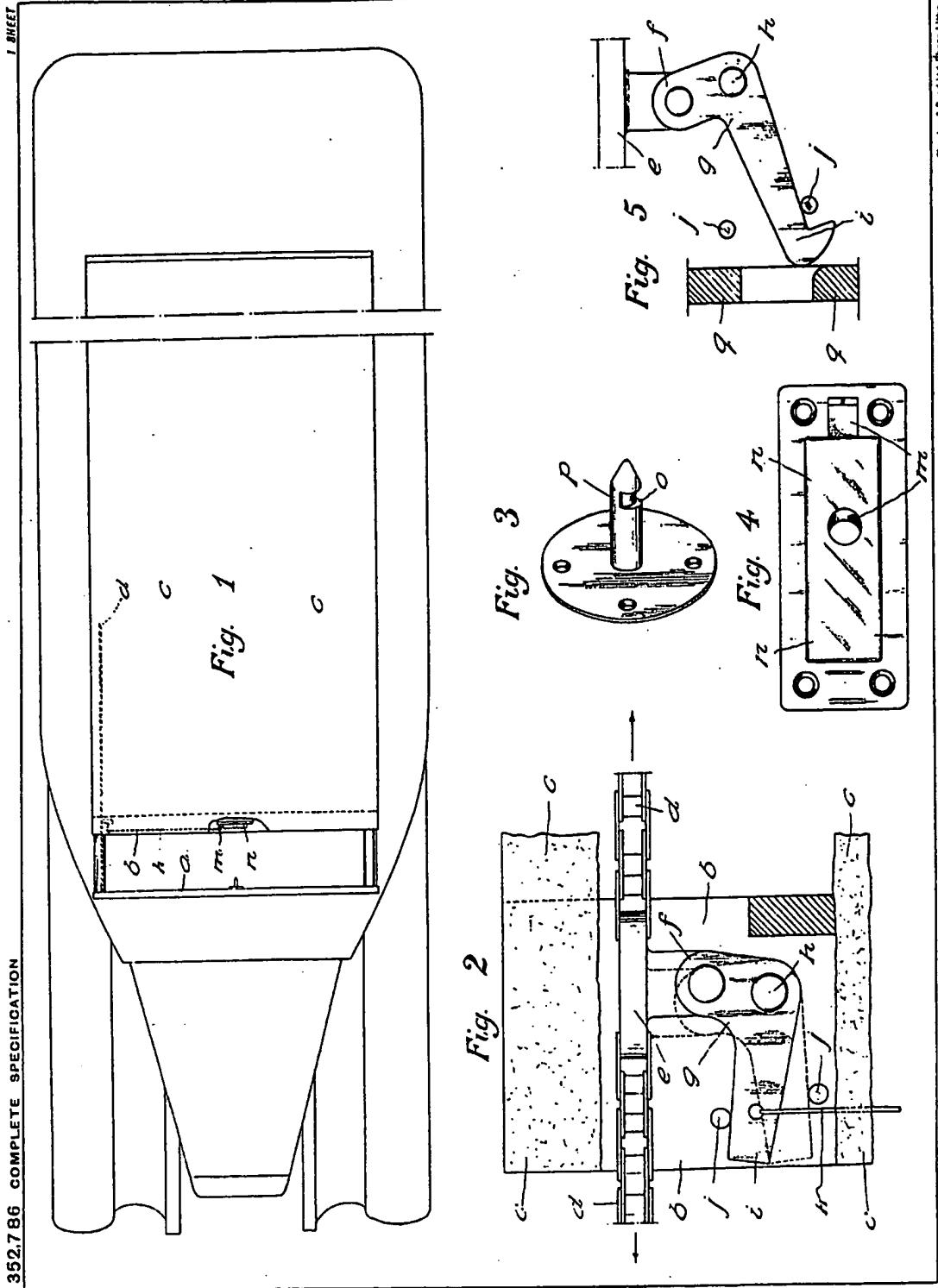


Fig. 5





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